

REMARKS

This paper is presented in response to the non-final official action dated August 20, 2010, wherein (a) claims 110-138 were pending, (b) claims 115-121, 126, 128, 129, 131, and 134-136 were withdrawn from consideration, (c) claims 110-112, 127, and 132 were rejected as being anticipated by Bunting, (d) claim 113 was rejected as being anticipated by Schulz, (e) claim 114 was rejected as being anticipated by Bundschuh, (f) claims 122-125 were rejected as being anticipated by Dobring, (g) claim 130 was rejected as being anticipated by Johanson, (h) claim 133 was rejected as being anticipated by Okuchi, and (i) claims 137 and 138 were rejected as being anticipated by Day.

By the foregoing, the specification, drawings, and claims 110-112, 122, 127, 133, and 138 have been amended. Claims 123-125 are canceled. Claims 110-114, 122, 127, 130, 132, 133, 137, and 138 remain pending and at issue, with claims 110, 113, 114, 122, 127, 130, 132, 133, 127, and 138 being independent.

Reconsideration of the application, as amended, is solicited.

Amendments to the Specification

Paragraph [0118] of the specification as filed erroneously referred to "two sets of ribs 180." The specification has been amended to refer to "two sets of ribs 182." No new matter is added.

Amendments to the Drawings

Reference numeral 66 was missing from Figures 7b, 11a, and 11b as filed. Amendments to the drawings to add reference numeral 66 are submitted herewith. No new matter is added.

Amendments to Claims 111 and 112

Claims 111 and 112 previously erroneously referred to Claim 1, which was canceled. Claims 111 and 112 have been amended to properly refer to Claim 110. No new matter is added.

Response to Rejections Under 35 U.S.C. § 102(b)

The various anticipation rejections are respectfully traversed; reconsideration of the claims, as amended, is solicited.

Claims 110-112, 127, and 132

Claims 110-112, 127, and 132 were rejected as being anticipated by Bunting. The claims, as amended, are patentably distinguishable over Bunting.

Claim 110, as amended, recites “a cassette for a recording medium, comprising an upper casing and a lower casing, a spool for holding a roll of recording medium and disposed between the upper and lower casings, and a side casing for enclosing the spool and joining the upper and lower casings, wherein the side casing is fitted to at least one of the upper and lower casings by press-fit or snap-fit connections, wherein the upper and lower casings and the spool each have a substantially central through-hole which are substantially aligned as between the parts, the cassette further comprising a drivable sprocket disposed in the through-hole of one of the upper and lower casings and dimensioned to extend into the through-hole in the spool for rotating the spool.”

The action considered element 22 of Bunting to constitute a lower casing of the cassette. However, element 22 is in fact a support plate of the projector of Bunting (see col. 3, lines 17-18). Therefore, the cartridge 16 of Bunting does not have a “lower casing” as asserted in the action. Additionally, Bunting fails to disclose a “central through-hole” in the lower casing.

Still further, the cartridge 16 of Bunting would be unsuitable for transportation. Because the cartridge 16 of Bunting has no lower casing, the supply reel 18 would fall out of the cartridge during transportation, which is clearly undesirable. One of ordinary skill in the art would not, however, modify the cartridge of Bunting to provide a lower casing because the cartridge is specifically designed to fit in the recess of the projector. The presence of a lower casing would adversely affect this configuration.

For at least these reasons, Bunting does not anticipate claim 110 and dependent claims 111 and 112. Withdrawal of the rejection is respectfully requested.

Claim 127, as amended, recites “[a] cassette comprising a hollow spool for holding a recording medium, said cassette further comprising a sprocket disposed inside at least a part of the spool and driveable to rotate the spool for unwinding recording medium therefrom, wherein a surface of the sprocket in contact with an interior surface of the spool comprises a plurality of protrusions which bear on the inside surface of the spool to provide an interference fit with the spool.”

The action asserts that the spindle 24 of Bunting is equivalent to the “sprocket” of claim 127. However, claim 127 recites that the sprocket is comprised in the cassette. This is distinguishable from Bunting because the spindle 24 of Bunting is part of the projector and not part of the cassette.

Further, the claim has been amended to recite that the surface of the sprocket creates an interference fit with the inside of the spool. This contrasts with the structure of Bunting, in which the springs 26 of the spindle 24 fit into corresponding recesses in the film reel 18. This is not an “interference fit.” The use of an interference fit between the sprocket and spool is advantageous because the tolerance on the spool diameter is less critical, which reduces manufacturing and quality control costs. This feature also enables the spool to be made out of an inexpensive material, such as cardboard.

For at least these reasons, Bunting does not anticipate claim 127. Withdrawal of the rejection is respectfully requested.

Claim 132 recites “[a] recording medium cassette comprising a casing and having a wound roll of recording medium disposed in the casing which roll can unwind such that an end of the recording medium can exit the casing, wherein the cassette further comprises a leaf spring disposed on the casing and oriented to act on the recording medium to exert a force in a direction towards the center of the roll of recording medium.”

Claim 132 is not anticipated by Bunting for a number of reasons. First, claim 132 recites "a leaf spring disposed on the casing" of the cassette. Clearly, the springs 26 of Bunting are on the spindle 24, which is part of the projector and not part of the "cassette." Secondly, the springs 26 of Bunting do not "act on the recording medium" as recited in claim 132. Instead, they act upon the spool of the supply reel 18. Further, when the springs 26 are in contact with the spool of the supply reel they will act outwardly and therefore not "in a direction towards the center of the roll of the recording medium."

For at least these reasons, Bunting does not anticipate claim 132. Withdrawal of the rejection is respectfully requested.

Claim 113

The action rejected claim 113 as being anticipated by Schulz. Claim 113 recites "[a] cassette for a recording medium comprising an exit region for recording medium, and first and second flanges disposed at the exit region, each flange comprising one or more grooves adapted to receive an edge of a recording medium and allow the said edge to pass along the grooves."

The action appears to consider the flanges 6 and 7 of Schulz to be equivalent to the "flanges" of claim 113. Claim 113 recites that the flanges comprise "one or more grooves adapted to receive an edge of a recording medium and allow the said edge to pass along the grooves." The action considers that the flanges 6 and 7, in combination with the encircling ribs 5 of Schulz, constitute such "grooves". However, claim 113 recites the grooves to be comprised in the flange, whereas the "grooves" of Schulz are constituted between two separate elements. Further, Figure 1 of Schulz discloses that the area between the flanges 6 and 7 and respective encircling ribs 5 does not contain film roll 2. Therefore, these "grooves" do not receive an edge of a recording medium and allow the said edge to pass along the grooves, as recited in claim 113.

The grooves of claim 113 are advantageous in that in embodiments they provide a guiding function to the tape to ensure that it is fed through the outlet of the cassette. It would not be obvious to one of ordinary skill in the art to modify the

flanges 6 and 7 of Schulz to provide such grooves, since in use the flanges of Schulz are deflected away from the tape roll 2 so as to enable it to rotate (Schulz col. 2, lines 48-50). Therefore, one of ordinary skill in the art would not add grooves because, in use, they would be deflected away from the tape roll and would be effectively redundant.

For at least these reasons, Schulz does not anticipate claim 113. Withdrawal of the rejection is respectfully requested.

Claim 114

The action rejected claim 114 as being anticipated by Bundschuh. Claim 114 recites “[a] cassette for a recording medium comprising a casing, wherein one region of the casing has a rib on its exterior surface, which rib is adapted to slide in a groove of a device in which the cassette can be inserted, the rib comprising a projection adapted to latch into a detent of a device in which the cassette can be inserted.”

Figure 1 of Bundschuh shows a number of features on the surface of cartridge 90 that could be considered to constitute “a rib.” However, none of the ribs of Bundschuh read onto claim 114. Claim 114 recites “the rib comprising a projection adapted to latch into a detent of a device in which the cassette can be inserted.” For example, if rib 100a of Bundschuh is considered as “the rib,” then there is clearly no projection comprised on that rib.

The action also considers that the horizontal rib in Bundschuh (proximate to lead line 202) could constitute “the rib.” In this case, it could be possible to consider Item 100b as the “projection.” However, claim 114 also recites that the “rib is adapted to slide in a groove of a device in which the cassette can be inserted.” In Bundschuh, this horizontal rib does not slide in a groove of the projector to which it is to be mounted. Rather, the horizontal rib will simply rest on surfaces 32 and 35 (see Figure 1).

For at least these reasons, Bundschuh does not anticipate claim 114. Withdrawal of the rejection is respectfully requested.

Claim 122

Claims 122-125 were rejected as being anticipated by Dobring. Claims 123-125 are canceled.

Claim 122, as amended, recites “[a] cassette adapted to be received in a printing device, the cassette comprising a resiliently moveable portion capable of interacting with a ramp of a printing device, such that during insertion of the cassette the ramp causes movement of the resiliently moveable portion from a position in which it would otherwise prevent insertion of the cassette into a position allowing insertion of the cassette.”

The Office action dated does not make any reference to the claim language of “a resiliently moveable portion capable of interacting with a ramp of a printing device” in the rejection of Claim 122 and does not point to any disclosure in Dobring that would qualify as “a resiliently moveable portion capable of interacting with a ramp of a printing device.” Therefore, the Office action has failed to make out a prima facie case of anticipation.

Further, the cassette of Dobring fails to disclose at least “a resiliently moveable portion capable of interacting with a ramp of a printing device.” There does not appear to be any disclosure in Dobring that would lead one of ordinary skill in the art to place a resiliently moveable portion on the cassette.

For at least these reasons, Dobring does not anticipate claim 122. Withdrawal of the rejection is respectfully requested.

Claim 130

Claim 130 was rejected as being anticipated by Johanson. Claim 130 recites “[a] cassette for use with a printer, the cassette comprising one or more ribs on an outside surface of the cassette, at least one of the ribs being substantially channel-shaped, wherein at least one of the legs of the channel-shape is disposed at an angle of greater than 90 degree to the base of the channel-shape.”

The action considers the ribs 36 of Johanson (see Fig. 1) to be equivalent to the “ribs” of claim 130. However, claim 130 recites the ribs to be “substantially channel shaped” and “wherein at least one of the legs of the channel shape is disposed at an angle of greater than 90 degrees to the base of the channel shape.” The ribs 36 of Johanson are not “channel shaped,” nor does Johanson disclose a “leg” that is “disposed at an angle of greater than 90 degrees to the base of the channel shape.”

For at least these reasons, Johanson does not anticipate claim 130. Withdrawal of the rejection is respectfully requested.

Claim 133

Claim 133 was rejected as being anticipated by Okuchi. Claim 133, as amended, recites “[a] set of cassettes for holding a recording medium, each cassette comprising an upper portion and a lower portion disposed apart a distance and joined together by attachment to a side portion having a width corresponding to the distance, thereby enabling a roll of recording medium to be held between the upper and lower portions with the width of the recording medium being oriented substantially parallel to the width of the side portion, wherein each cassette has a side portion of a different width, wherein the upper and lower portions of each cassette within the set are interchangeable with the upper and lower portions of different cassettes within the set.”

This is distinguishable over Okuchi in which the large width cassette shown in Figure 3 and the narrow width cassette shown in Figure 4 each have removable lids 11 and 11a respectively. However, it appears that the remainder of the cassette of Figures 3 and 4 (i.e. the sides and base) are integrally formed. Therefore, the lower casing of the broad width cassette and the lower casing of the narrow width cassette are not interchangeable.

One of ordinary skill in the art would be discouraged from modifying the teachings of Okuchi to provide this feature. This is because the penultimate paragraph of column 4 of Okuchi states “with respect to the broad width tape cassette T2, a bottom wall of the cassette body 10 has the projected portion 5

described above. The projected portion 5 is fitable with the recess portion 4 formed in the cassette installing portion 1. On the other hand, with respect to the small width tape cassette T1, since the width of the tape T1 accommodated in the cassette body 10a is small, contrary to the broad tape cassette T2, a portion corresponding to the projected portion 5 of the broad tape cassette T2 is not provided at the bottom of the small width tape cassette T1." Therefore, Okuchi specifically teaches away from claim 133, instead teaching having different base portions on the different size cassettes. One of ordinary skill in the art would be strongly discouraged from modifying the teachings of Okuchi to make the base portions interchangeable.

For at least these reasons, Okuchi does not anticipate claim 133. Withdrawal of the rejection is respectfully requested.

Claim 137

Claim 137 was rejected as being anticipated by Day. Claim 137 recites "[a]n ink ribbon cassette comprising: a supply spool for holding a roll of ink ribbon; a take-up spool onto which ink ribbon unwound from the supply spool is wound; a driveable sprocket arranged to rotate the supply spool for rewinding unwound ribbon onto the supply spool; and a spring disposed to act axially on the sprocket for maintaining tension of the ink ribbon between the supply and take-up spools."

Figure 3 of Day shows a rewind sprocket 54 for driving an ink ribbon take-up spool 48 of an ink ribbon cassette 24. The rewind sprocket 54 is driven by sprocket gear 62 via wrap spring clutch 60. The action alleges that the wrap spring clutch 60 is equivalent to the "spring" of claim 137. However, claim 137 recites "a spring disposed to act axially on the sprocket." The wrap spring clutch 60 of Day will provide a radial force to the rewind sprocket to cause rotation thereof, but is not "disposed to act axially on the sprocket."

Further, in claim 137 the "spring" is comprised in the ink ribbon cassette. In Day, the wrap spring clutch is part of the rewind sprocket assembly that is part of the tape printer. Therefore wrap spring clutch 60 in Day is not comprised in an ink ribbon cassette as required by claim 137. An effect of this difference is that when an ink ribbon cassette is removed from the tape printer of Day then wrap spring clutch

60 has no affect on the ink ribbon cassette. This contrasts with embodiments of the invention of Claim 137 in which the spring acts to maintain tension of the ink ribbon between the supply and take-up spools at all times.

For at least these reasons, Day does not anticipate claim 137. Withdrawal of the rejection is respectfully requested.

Claim 138

Claim 138 was also rejected as being anticipated by Day. Claim 138, as amended, recites “[a]n ink ribbon cassette comprising: a hollow supply spool for holding a roll of ink ribbon; and a driveable sprocket at least part of which is disposed inside the supply spool to rotate the supply spool for rewinding unwound ribbon onto the supply spool, wherein the end of the sprocket that is not disposed inside the supply spool comprises an inner cylinder and an outer cylinder, the inner cylinder extending further in an axial direction away from the supply spool than the outer cylinder so as to bear against a biasing element of the ink ribbon cassette.”

The action considered the slotted sprocket flange 68 of Day to be equivalent to the “inner cylinder” and the sprocket gear 62 to be equivalent to the “outer cylinder.” It is clear that the slotted sprocket flange 68 (“inner cylinder”) does not extend further in an axial direction away from the supply spool than the sprocket gear 62 (“outer cylinder”), as recited in amended claim 138.

Further, claim 138 now recites the inner cylinder “to bear against a biasing element of the ink ribbon cassette.” It is clear from Figure 3 of Day that the sprocket gear 62 (“inner cylinder”) does not bear against a biasing element of the ink ribbon cassette of Day. Advantageously, by biasing the inner cylinder against a biasing element of the ink ribbon cassette, it is ensured that a force is applied to the sprocket which, similarly to claim 137, ensures tension of the ink ribbon.

For at least these reasons, Day does not anticipate claim 138. Withdrawal of the rejection is respectfully requested.

CONCLUSION

In view of the above amendments and remarks, the application is in condition for allowance, and such action is solicited.

Should the examiner wish to discuss the foregoing or any matter of form in an effort to advance this application toward allowance, he is urged to telephone the undersigned at the indicated number.

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Respectfully submitted,

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